

BEFORE THE

## FEDERAL COMMUNICATIONS COMMISSION

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In re:

AMENDMENT OF SECTION 73.622(b)  
 TABLE OF ALLOTMENTS  
 DTV BROADCAST STATIONS  
 LAKIN, KANSAS

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)  
)  
)

MM Docket No.

FEDERAL COMMUNICATIONS COMMISSION  
 OFFICE OF THE SECRETARY

TO: Chief, Allocations Branch  
 Policy and Rules Division

**PETITION FOR RULEMAKING**

Smoky Hills Public Television ("Smoky Hills"), licensee of noncommercial educational station KSWK-TV ("KSWK"), NTSC Channel \*3, DTV Channel \*23, Lakin, Kansas, by its attorneys and pursuant to the Commission's Rules, hereby requests that the Commission institute a rulemaking proceeding to amend Section 73.622(b) of its Rules to substitute DTV Channel \*8 in lieu of DTV Channel \*23 as KSWK's paired digital channel in Lakin, Kansas. This substitution of paired digital channels would serve the public interest. In addition, as the attached technical documentation demonstrates, KSWK's proposed operation on Channel \*8 will not cause impermissible interference to any other stations.

Smoky Hills proposes the following amendment to Section 73.622(b) of the Commission's Rules:

<u>Community</u>	<u>Present</u>	<u>Proposed</u>
Lakin, Kansas	*23	*8

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In support of this petition, Smoky Hills submits the following:

A. A Petition for Rulemaking is the Only Available Avenue of Relief for Smoky Hills.

Station KSWK is only television station, public or commercial, licensed to Lakin, Kansas. Smoky Hills has operated noncommercial educational NTSC station KSWK on Channel \*3 at Lakin since March 15, 1989, providing high quality educational, informational and cultural programming, including children's programming, to the Lakin area. In the *Second Memorandum Opinion and Order on Reconsideration of the Fifth and Sixth Report and Orders*, in the Advanced Television Proceeding, MM Docket No. 87-268, FCC 98-315 (released December 18, 1998), the Commission allocated Channel \*23 for KSWK. Smoky Hills proposes to substitute DTV Channel \*8 instead of DTV Channel \*23 at Lakin, Kansas. As demonstrated in the attached Engineering Statement prepared by Smoky Hills' consulting engineer, DTV Channel \*8 can be used at the current KSWK transmitter site, assuming a power/height combination of no more than 100 kW/170 m HAAT and a directional antenna pattern.

B. The Proposed Change to the Table of Allotments Will Serve the Public Interest.

The proposed change to the DTV Table of Allotments will serve the public interest by enhancing Smoky Hills' ability to provide high quality noncommercial educational programming. In particular, the proposed substitution will allow Smoky Hills to preserve the limited resources available for KSWK. By necessity, as a noncommercial educational licensee operating a regional television network with a limited budget, Smoky Hills must be a careful steward of its resources, even while it seeks to offer the highest quality of public broadcasting service.

The allocation of Channel \*23 as Smoky Hills' paired DTV channel for KSWK has created some obstacles to the achievement of Smoky Hills' DTV goals. Smoky Hills proposes to

substitute Channel \*8 for Channel \*23 because operation on VHF Channel \*8 would result in a substantial cost savings. Use of VHF Channel \*8 is less susceptible to terrain and vegetation blockage, and would allow Smoky Hills to replicate its existing coverage area with much lower electrical costs. In contrast, replication using UHF Channel \*23 would require significantly more power and related expenses. Specifically, in order to replicate the coverage of KSWK's existing analog facility on assigned DTV Channel \*23, Smoky Hills would need to utilize a transmitter with a minimum of 30 kW average power output, resulting in an estimated input operating power of 255 kW. As Exhibit A details, this power would result in a monthly electrical cost of \$22,032 (adding up to \$264,384 per year, or \$2,643,840 over a ten-year span).<sup>1</sup> Thus, it would be cost prohibitive for Smoky Hills to operate KSWK-DT on Channel \*23.

However, if Smoky Hills uses DTV Channel \*8 for KSWK, the transmitter would only need a minimum of 10 kW average output to replicate the existing analog coverage area, and the input operating power would be approximately 25 kW. Operating KSWK on DTV Channel \*8 thus would result in utility costs of only \$2,160 per month (adding up to \$25,920 a year, or \$259,200 over a ten-year period).<sup>2</sup> This substantial costs savings of over \$235,000 a year (or more than \$2,000,000 over a ten-year period) is extraordinarily significant to a public broadcaster such as Smoky Hills, especially considering that DTV transition will last at least until 2006 (during which time dual analog and digital operation will be maintained), and further considering that Smoky Hills has an additional DTV station (Station KOOD in Hays, Kansas) in

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<sup>1</sup> These calculations assume a 24-hour broadcast day, resulting in electrical consumption of 183,600 KWHR, and current electrical utility costs of 12 cents per KWHR. *See* Exhibit A.

<sup>2</sup> A 24-hour broadcast day would result in electrical consummation of 18,000 KWHR. *See* Exhibit A.

its regional network to construct, operate and maintain, as well as Station KDCK in Dodge City, Kansas to convert to digital.

C. The Proposed Change to the Table of Allotments Will Not Result in Impermissible Interference with Surrounding Stations.

Under Section § 73.622(f)(5) of the Commission Rules, an existing licensee with DTV allotment may seek a change in the station's channel if the licensee demonstrates that the change "complies with the technical criteria in §73.623(c), and thereby will not result in new interference exceeding the *de minimis* standard set forth in that section . . ." In accordance with these rules, Smoky Hills submits that the Commission can substitute DTV Channel \*8, at a power/height combination of no more than 100 kW/170 m HAAT, for DTV Channel \*23. As the Engineering Statement in Exhibit B demonstrates, the proposed operation of KSWK-DT on Channel \*8 with a directional antenna pattern, an ERP of 100 kW and HAAT of 170 m would in fact result in no impermissible interference to any other station.

CONCLUSION

For all of these reasons, Smoky Hills requests that the Commission institute a rulemaking proceeding to amend Section 73.622 of its Rules to substitute DTV Channel \*8 for DTV Channel \*23 as the paired channel for KSWK in Lakin, Kansas. If the Commission grants this petition and modifies the DTV Table of Allotments accordingly, Smoky Hills is committed to applying for and constructing its DTV station for KSWK on Channel \*8.

Respectfully Submitted,

SMOKY HILLS PUBLIC TELEVISION

By: Barry Persh  
Margaret L. Miller  
Barry S. Persh

Attorneys for Petitioner

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November 1, 2001



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I, Richard Hicks, hereby declare under penalty of perjury that the foregoing facts set forth in this Petition for Rulemaking to amend Section 73.622 of the Commission's Rules are true and correct to the best of my knowledge and belief.

By:

A handwritten signature in dark ink, appearing to read "Richard Hicks", written over a horizontal line.

Richard Hicks  
CEO and General Manager

Date: October 31, 2001

## Exhibit A

### Operating Cost Considerations Channel 23 DTV vs Channel 8 DTV Smoky Hills Public Television

To assure near replication of current population coverage of existing NTSC station KSWK licensed to Lakin, KS, Engineering studies indicate that with high gain antennas, the following transmitter powers would be necessary:

#### **Activation of FCC assigned Channel 23 DTV:**

Transmitter would need to be a minimum of 30 KW Average power output, input operating power would be estimated at 255KW.\* Assuming a 24 hour broadcast day, electrical consumption would be 183,600 KWHR per month. At the current electrical utility cost of 12 cents per KWHR, monthly electrical costs alone would be \$22,032. This calculates to \$264,384 per year or \$2,643,840 over a 10 year period.

#### **Activation of requested Channel 8 DTV:**

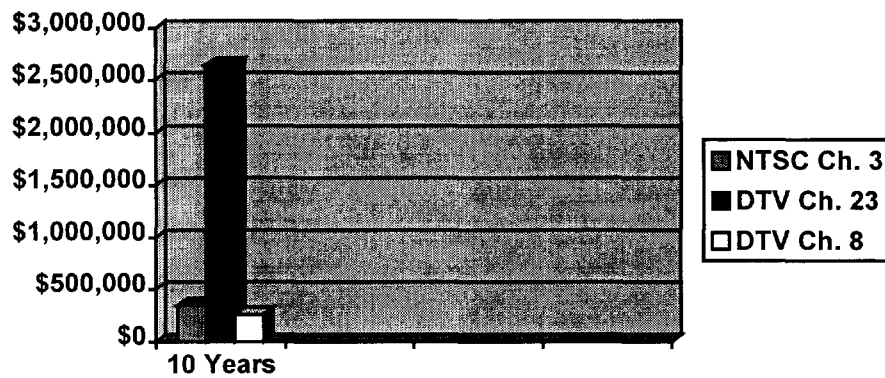
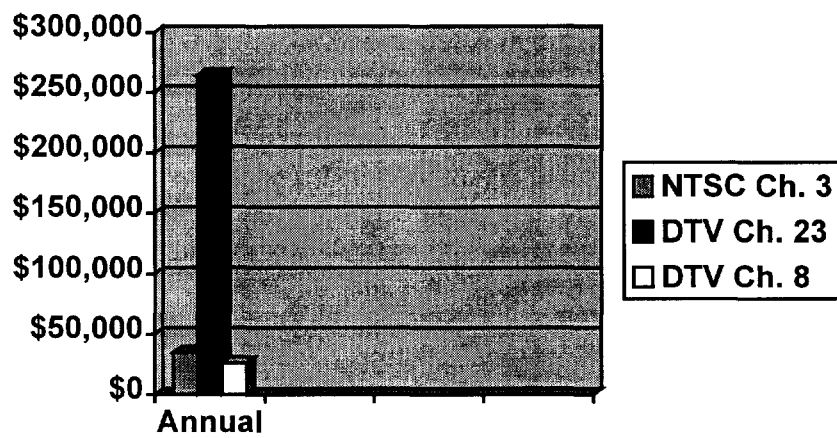
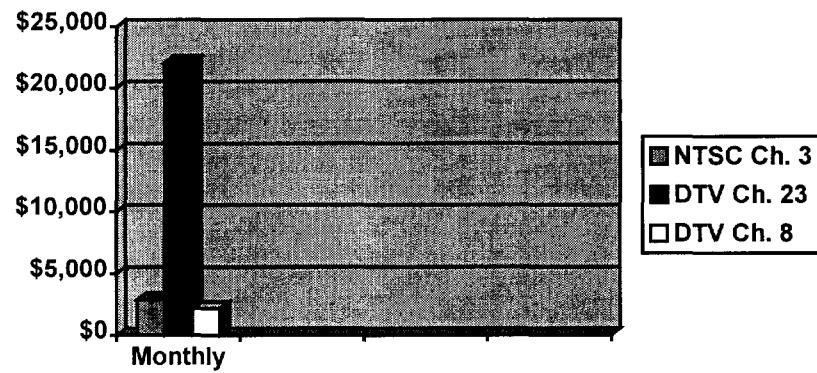
Transmitter would need to be a minimum of 10 KW Average power output, input operating power would be estimated at 25KW.\* Using the same broadcast day as the above example of 24 hour per day, electrical consumption would be 18,000 KWHR per month for a utility fee of \$2,160 per month, \$25,920 annually and \$259,200 over a ten year period.

### **Summary of Utility Cost Comparison**

KSWK Service	Monthly Cost	Annual Cost	10 Year Cost
Current NTSC	\$2,880	\$34,560	\$345,600
DTV Ch. 23 (FCC Assigned)	\$22,032	\$264,384	\$2,643,840
DTV Ch. 8 (Requested)	\$2,160	\$25,920	\$259,200

\*Transmitter Data from Harris and EMCEE  
Lloyd\Mydocuments\Future\ATV\KSWK\OperatingCostConsideration.doc

### Summary of Utility Cost Comparison







**ENGINEERING STATEMENT**  
**OF**  
**JOHN F.X. BROWNE, P.E.**  
**IN SUPPORT OF A**  
**PETITION FOR RULE MAKING**  
**TO AMEND THE**  
**DIGITAL TELEVISION TABLE OF ALLOTMENTS**  
**LAKIN, KS**

In its Sixth Report and Order in the Advanced Television Systems proceeding (MM Docket 87-268) the Commission allotted DTV Channel 23 (paired with NTSC / analog Channel 3, a reserved NCE channel) at Lakin, KS. Smoky Hills Public Broadcasting (Smoky Hills) is the licensee of KSWK-TV which is authorized to operate on Channel 3. For reasons stated elsewhere in the Petition, Smoky Hills wishes to substitute DTV Channel 8 for its allotted DTV Channel 23. This engineering statement reviews the technical issues associated with the proposed channel substitution.

**Applicable Rules**

A proposal to change channels of an existing allotment is treated under the de minimis interference protection requirements of Section 73.622(f)(7) of the Commission's rules per the provisions of Section 73.622(f)(5).

**Interference Study**

An interference study was conducted using Probe II™ software and verified for compliance with the OET-69 using proprietary software which emulates the Commission's algorithm running on a Sparc™ terminal.

Several stations operating on Channel 8 and adjacent-channel 7 were identified as requiring interference consideration and possible protection based on a reference site having geographical coordinates

37° 49' 38" NL  
101° 06' 35" WL

(This is the location of the present KSWK transmitter and the Channel 23 allotment.) An AHAAT of 170 meters is proposed from this site.

The study shows that using a directional antenna having a pattern similar to that defined in Table 1 and Table 1a, whose polar plot is depicted in Figure 1, can be employed to serve the Lakin area while protecting the identified facilities assuming a maximum effective radiated power of 100 kW.

A study based on the above parameters (i.e., location, HAAT, power and antenna pattern) shows the following maximum interference levels:

<u>Stations</u>	<u>Interference</u>
KTSC-DT	0.32%
KPTS-DT	0.2%
KSNK-TV	less than 0.1%
KWET-DT (app)	1.2%
KWET-DT (allot)	1.5%

All of these computations show values well below the 2% de minimis limits; other stations analyzed had interference less than 0.05%. A copy of the interference study is attached as Figure 2.

## **Conclusion**

Channel 8 may be substituted as the paired DTV channel for use with analog Channel 3 and will comply with all Commission requirements (including 43 dBu coverage of the principal city) if operated as proposed.

Therefore, it is proposed to amend 47 CFR 73.622(b) as follows:

Kansas:

:

Lakin

:

Present

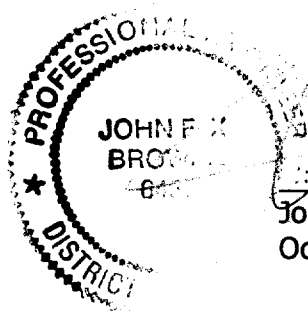
\*23

Proposed

\*8

**Certification**

This statement with associated exhibits was prepared by me or under my direction. All assertions contained in the statement are true of my own personal knowledge except where otherwise indicated and these latter assertions are based on information from sources known to be reliable and are believed to be true.



*John F.X. Browne*  
\_\_\_\_\_  
John F.X. Browne, P.E.  
October 24, 2001

**Attachments:**

Table I	Relative Field (10° points)
Table Ia	Relative Field (360°)
Figure 1	Antenna Field Pattern
Figure 2	Interference Analysis

**DIRECTIONAL ANTENNA DATA  
KWSK-DT  
TABLE #1**

<u>Actual Bearing</u>	<u>Pattern Azimuth</u>	<u>Relative Field</u>
N000E	0	0.033
	10	0.001
	20	0.047
	30	0.147
	40	0.283
N045E	45	0.359
	50	0.437
	60	0.593
	70	0.733
	80	0.844
N090E	90	0.913
	100	0.932
	110	0.876
	120	0.834
	130	0.901
N135E	135	0.953
	140	0.990
	150	0.978
	160	0.881
	170	0.834
N180E	180	0.891
	190	0.932
	200	0.876
	210	0.834
	220	0.901
N225E	225	0.953
	230	0.990
	240	0.978
	250	0.881
	260	0.834
N270E	270	0.891
	280	0.933
	290	0.902
	300	0.825
	310	0.707
N315E	315	0.637
	320	0.562
	330	0.405
	340	0.254
	350	0.124



Date **25 Oct 2001**  
 Call Letters **KWSK-TV** Channel **8**  
 Location **Lakin, KS**  
 Customer  
 Antenna Type **THA-C3-5/15-1**

## TABULATION OF AZIMUTH PATTERN

Azimuth Pattern Drawing # **THA-C3**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
0	0.033	45	0.359	90	0.913	135	0.953	180	0.891	225	0.953	270	0.891	315	0.637
1	0.027	46	0.374	91	0.917	136	0.962	181	0.898	226	0.962	271	0.898	316	0.623
2	0.021	47	0.390	92	0.921	137	0.970	182	0.905	227	0.970	272	0.905	317	0.608
3	0.016	48	0.405	93	0.924	138	0.978	183	0.911	228	0.978	273	0.911	318	0.593
4	0.012	49	0.421	94	0.927	139	0.984	184	0.917	229	0.984	274	0.917	319	0.578
5	0.008	50	0.437	95	0.929	140	0.990	185	0.922	230	0.990	275	0.922	320	0.562
6	0.005	51	0.453	96	0.931	141	0.994	186	0.927	231	0.994	276	0.927	321	0.547
7	0.002	52	0.469	97	0.932	142	0.997	187	0.930	232	0.997	277	0.930	322	0.531
8	0.001	53	0.484	98	0.933	143	0.999	188	0.932	233	0.999	278	0.932	323	0.516
9	0.000	54	0.500	99	0.933	144	1.000	189	0.933	234	1.000	279	0.933	324	0.500
10	0.001	55	0.516	100	0.932	145	0.999	190	0.932	235	0.999	280	0.933	325	0.484
11	0.002	56	0.531	101	0.930	146	0.997	191	0.930	236	0.997	281	0.932	326	0.469
12	0.005	57	0.547	102	0.927	147	0.994	192	0.927	237	0.994	282	0.931	327	0.453
13	0.008	58	0.562	103	0.922	148	0.990	193	0.922	238	0.990	283	0.929	328	0.437
14	0.012	59	0.578	104	0.917	149	0.984	194	0.917	239	0.984	284	0.927	329	0.421
15	0.016	60	0.593	105	0.911	150	0.978	195	0.911	240	0.978	285	0.924	330	0.405
16	0.021	61	0.608	106	0.905	151	0.970	196	0.905	241	0.970	286	0.921	331	0.390
17	0.027	62	0.623	107	0.898	152	0.962	197	0.898	242	0.962	287	0.917	332	0.374
18	0.033	63	0.637	108	0.891	153	0.953	198	0.891	243	0.953	288	0.913	333	0.359
19	0.040	64	0.652	109	0.883	154	0.943	199	0.883	244	0.943	289	0.908	334	0.343
20	0.047	65	0.666	110	0.876	155	0.933	200	0.876	245	0.933	290	0.902	335	0.328
21	0.055	66	0.680	111	0.868	156	0.923	201	0.868	246	0.923	291	0.897	336	0.313
22	0.064	67	0.694	112	0.861	157	0.912	202	0.861	247	0.912	292	0.890	337	0.298
23	0.073	68	0.707	113	0.855	158	0.901	203	0.855	248	0.901	293	0.884	338	0.283
24	0.082	69	0.720	114	0.849	159	0.891	204	0.849	249	0.891	294	0.877	339	0.268
25	0.092	70	0.733	115	0.844	160	0.881	205	0.844	250	0.881	295	0.869	340	0.254
26	0.102	71	0.746	116	0.839	161	0.872	206	0.839	251	0.872	296	0.861	341	0.239
27	0.113	72	0.758	117	0.836	162	0.863	207	0.836	252	0.863	297	0.852	342	0.225
28	0.124	73	0.770	118	0.834	163	0.856	208	0.834	253	0.856	298	0.844	343	0.212
29	0.135	74	0.782	119	0.833	164	0.849	209	0.833	254	0.849	299	0.834	344	0.198
30	0.147	75	0.793	120	0.834	165	0.843	210	0.834	255	0.843	300	0.825	345	0.185
31	0.159	76	0.804	121	0.836	166	0.839	211	0.836	256	0.839	301	0.814	346	0.172
32	0.172	77	0.814	122	0.839	167	0.836	212	0.839	257	0.836	302	0.804	347	0.159
33	0.185	78	0.825	123	0.843	168	0.834	213	0.843	258	0.834	303	0.793	348	0.147
34	0.198	79	0.834	124	0.849	169	0.833	214	0.849	259	0.833	304	0.782	349	0.135
35	0.212	80	0.844	125	0.856	170	0.834	215	0.856	260	0.834	305	0.770	350	0.124
36	0.225	81	0.852	126	0.863	171	0.836	216	0.863	261	0.836	306	0.758	351	0.113
37	0.239	82	0.861	127	0.872	172	0.839	217	0.872	262	0.839	307	0.746	352	0.102
38	0.254	83	0.869	128	0.881	173	0.844	218	0.881	263	0.844	308	0.733	353	0.092
39	0.268	84	0.877	129	0.891	174	0.849	219	0.891	264	0.849	309	0.720	354	0.082
40	0.283	85	0.884	130	0.901	175	0.855	220	0.901	265	0.855	310	0.707	355	0.073
41	0.298	86	0.890	131	0.912	176	0.861	221	0.912	266	0.861	311	0.694	356	0.064
42	0.313	87	0.897	132	0.923	177	0.868	222	0.923	267	0.868	312	0.680	357	0.055
43	0.328	88	0.902	133	0.933	178	0.876	223	0.933	268	0.876	313	0.666	358	0.047
44	0.343	89	0.908	134	0.943	179	0.883	224	0.943	269	0.883	314	0.652	359	0.040

Remarks:

**Table 1a**

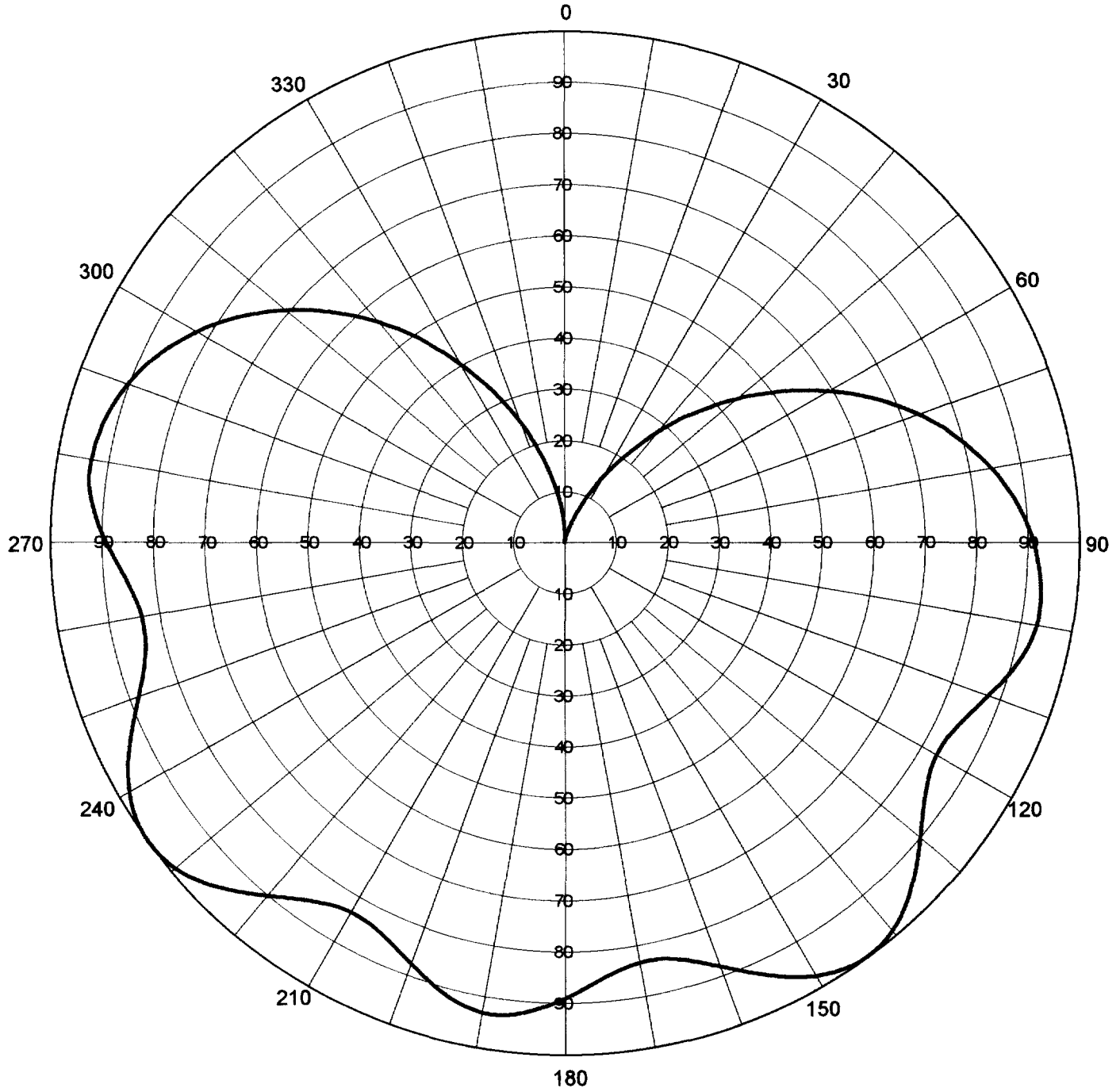
## AZIMUTH PATTERN

RMS Gain at Main Lobe  
Calculated / Measured

1.70 (2.30 dB)  
Calculated

Frequency  
Drawing #

183 MHz  
THA-C3



Remarks:

**Figure 1**

# TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 10-25-2001 Time: 09:50:56

Record Selected for Analysis

KSWK-DT CUR -PROPOSED Lakin KS US  
 Channel 08 ERP 100.0 kW HAAT 00141 m RCAMSL 01080 m  
 Latitude 037-49-38 Longitude 0101-06-35  
 Status Zone Border  
 Dir Antenna Make CDB Model 000000000000001 Beam tilt Y Ref Azimuth 189.0  
 Last update 00000000 Cutoff date 00000000 Docket  
 Comments  
 Applicant

Cell Size for Service Analysis 2.0 km/side

Distance Increments for Longley-Rice Analysis 1.00 km

Azimuth (Deg)	ERP (kW)	HAAT (m)	36.0 dBu F(50,90) (km)
0.0	0.130	175.5	52.3
45.0	12.946	176.2	86.4
90.0	82.901	179.2	100.2
135.0	89.643	170.0	99.8
180.0	78.854	159.8	97.7
225.0	89.643	152.2	97.8
270.0	78.854	161.1	97.8
315.0	40.297	165.2	93.3

Evaluation toward Class A Stations

No Spacing violations or contour overlap to Class A stations

Class A Evaluation Complete

SPACING VIOLATION FOUND BETWEEN STATION

KSWK-DT 08 Lakin KS CUR PROPOSED

and station

SHORT TO: KSNK 08 MCCOOK NE BLCT 19821110KI  
 039-49-48 0100-42- 4  
 Req. separation 273.6 Actual separation 225.1 Short 48.5 km

Figure 2



Proposed facility OK to FCC Monitoring Stations

Proposed facility OK toward West Virginia quite zone

Proposed facility OK toward Table Mountain

Proposed facility is beyond the Canadian coordination distance

Proposed facility is beyond the Mexican coordination distance

Proposed station is OK toward AM broadcast stations

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#### Start of Interference Analysis

Channel	Call	Proposed Station City/State	ARN	
08	KSWK-DT	Lakin KS	CUR	PROPOSED

#### Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
07	KBSH-TV	HAYS KS	194.0	LIC	BLCT	-1759
08	KTSC	PUEBLO CO	307.6	LIC	BLET	-270
08	KPTS	HUTCHINSON KS	293.3	LIC	BLET	-263
08	KSNK	MCCOOK NE	225.4	LIC	BLCT	-19821110KI
08	KWET-DT	CHEYENNE OK	279.6	CP	BPEDT	-20000501AHF
08	KWET-DT	CHEYENNE OK	279.6	PLN	DTVPLN	-DTVP0041

%%%

#### Analysis of Interference to Affected Station 1

##### NTSC Baseline Analysis

Channel	Call	City/State	Application	Ref. No.
07	KBSHTV	HAYS KS	DTVPLN	-NPLN0512

#### Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
08	KPTS	HUTCHINSON KS	164.1	PLN	DTVPLN	-NPLN0516
07	KMNETV	BASSETT NE	383.8	PLN	DTVPLN	-NPLN0924
08	KSNK	MCCOOK NE	157.5	PLN	DTVPLN	-NPLN0930
07	KETV	OMAHA NE	389.7	PLN	DTVPLN	-NPLN1021

Results for:	7N KS HAYS	DTVPLN	NPLN0512	PLN
		POPULATION	AREA (sq km)	
within Noise Limited Contour		100124	24986.7	
not affected by terrain losses		94553	23489.1	
lost to NTSC IX		19	36.0	
lost to additional IX by ATV		0	0.0	

lost to all IX

19

36.0

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
07	KBSH-TV	HAYS KS	BLCT	-1759

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
07	KMBCTV	KANSAS CITY MO	417.1	APP	BPRM	-20000417AAA
07	KMNE-TV	BASSETT NE	383.8	LIC	BLET	-19871103KG
07	KETV	OMAHA NE	389.7	CP	BPCT	-19810527KF
07	KOCO-DT	OKLAHOMA CITY OK	403.7	APP	BPCDT	-20010904ABG
07	NEW	OKLAHOMA CITY OK	403.7	APP	BPRM	-20000412AAA
08	KPTS	HUTCHINSON KS	164.1	LIC	BLET	-263
08	KSNK	MCCOOK NE	157.5	LIC	BLCT	-19821110KI
08	KSWK-DT	Lakin KS	194.0		CUR	-PROPOSED

Proposal causes no interference

#####

Analysis of Interference to Affected Station 2

NTSC Baseline Analysis

Channel	Call	City/State	Application	Ref. No.
08	KTSC	PUEBLO CO	DTVPLN	-NPLN0220

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
08	KOFT-DT	FARMINGTON NM	369.9	PLN	DTVPLN	-DTVP0038
07	KMGHTV	DENVER CO	114.0	PLN	DTVPLN	-NPLN0217
08	KJCT	GRAND JUNCTION CO	295.2	PLN	DTVPLN	-NPLN0219
09	KUSATV	DENVER CO	114.0	PLN	DTVPLN	-NPLN0222
08	KSNK	MCCOOK NE	377.6	PLN	DTVPLN	-NPLN0930
08	NEW	LARAMIE WY	289.5	PLN	DTVPLN	-NPLN1716

Results for:	8N CO PUEBLO	DTVPLN	NPLN0220	PLN
		POPULATION	AREA (sq km)	
within Noise Limited Contour	1793379	33404.4		
not affected by terrain losses	1197887	29846.1		
lost to NTSC IX	576612	3510.1		
lost to additional IX by ATV	0	0.0		
lost to all IX	576612	3510.1		

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
08	KTSC	PUEBLO CO	BLET	-270

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
07	KMGH-TV	DENVER CO	161.7	LIC	BLCT	-19970805KM
08	KJCT	GRAND JUNCTION CO	329.0	LIC	BLCT	-19791019KJ
08	KSNK	MCCOOK NE	369.9	LIC	BLCT	-19821110KI

08	KOFT	FARMINGTON NM	369.5	CP	BPCDT	-19991101AET
08	KOFT-DT	FARMINGTON NM	369.5	PLN	DTVPLN	-DTVP0038
08	921210KE	LARAMIE WY	335.2	APP	BPET	-19921210KE
09	KUSA-TV	DENVER CO	161.7	LIC	BLCT	-19900801KF
08	KSWK-DT	Lakin KS	307.6		CUR	-PROPOSED

Total scenarios = 1

Result key: 1  
 Scenario 1 Affected station 2  
 Before Analysis

Results for:	8N CO PUEBLO	BLET	270	LIC
		POPULATION	AREA (sq km)	
	within Noise Limited Contour	598644	32463.6	
	not affected by terrain losses	583365	26073.3	
	lost to NTSC IX	2812	326.8	
	lost to additional IX by ATV	0	0.0	
	lost to all IX	2812	326.8	

Potential Interferring Stations Included in above Scenario 1

7N CO DENVER	BLCT	19970805KM	LIC
8N NE MCCOOK	BLCT	19821110KI	LIC
9N CO DENVER	BLCT	19900801KF	LIC

After Analysis

Results for:	8N CO PUEBLO	BLET	270	LIC
		POPULATION	AREA (sq km)	
	within Noise Limited Contour	598644	32463.6	
	not affected by terrain losses	583365	26073.3	
	lost to NTSC IX	2812	326.8	
	lost to additional IX by ATV	1864	754.4	
	lost to all IX	4676	1081.2	

Potential Interferring Stations Included in above Scenario 1

7N CO DENVER	BLCT	19970805KM	LIC
8N NE MCCOOK	BLCT	19821110KI	LIC
9N CO DENVER	BLCT	19900801KF	LIC
8A KS Lakin	CUR	PROPOSED	

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Analysis of Interference to Affected Station 3

NTSC Baseline Analysis

Channel	Call	City/State	Application Ref. No.
08	KPTS	HUTCHINSON KS	DTVPLN -NPLN0516

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
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08	KWET-DT	CHEYENNE OK	321.3	PLN	DTVPLN	-DTVP0041
07	KBSHTV	HAYS KS	164.1	PLN	DTVPLN	-NPLN0512
09	KOOD	HAYS KS	115.5	PLN	DTVPLN	-NPLN0518
08	KLKN	LINCOLN NE	316.8	PLN	DTVPLN	-NPLN0929
08	KSNK	MCCOOK NE	320.6	PLN	DTVPLN	-NPLN0930
08	KTUL	TULSA OK	300.9	PLN	DTVPLN	-NPLN1219

Results for: 8N KS HUTCHINSON      DTVPLN      NPLN0516      PLN

	POPULATION	AREA (sq km)
within Noise Limited Contour	670014	24117.2
not affected by terrain losses	643864	23237.0
lost to NTSC IX	77870	4513.0
lost to additional IX by ATV	4	4.0
lost to all IX	77874	4517.0

#### Analysis of current record

Channel	Call	City/State	Application	Ref. No.
08	KPTS	HUTCHINSON KS	BLET	-263

#### Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
07	KBSH-TV	HAYS KS	164.1	LIC	BLCT	-1759
08	KLKN	LINCOLN NE	316.8	LIC	BLCT	-19960708KK
08	KSNK	MCCOOK NE	320.6	LIC	BLCT	-19821110KI
08	KWET-DT	CHEYENNE OK	321.3	CP	BPEDT	-20000501AHF
08	KWET-DT	CHEYENNE OK	321.3	PLN	DTVPLN	-DTVP0041
08	KTUL	TULSA OK	300.9	LIC	BLCT	-19880602KE
09	KOOD	HAYS KS	115.5	LIC	BLCT	-19821130KE
08	KSWK-DT	Lakin KS	293.3		CUR	-PROPOSED

Total scenarios = 2

Result key: 2  
 Scenario 1 Affected station 3  
 Before Analysis

Results for: 8N KS HUTCHINSON      BLET      263      LIC

	POPULATION	AREA (sq km)
within Noise Limited Contour	670014	24117.2
not affected by terrain losses	643864	23237.0
lost to NTSC IX	77870	4513.0
lost to additional IX by ATV	38	32.0
lost to all IX	77908	4545.0

#### Potential Interfering Stations Included in above Scenario 1

7N KS HAYS	BLCT	1759	LIC
8N NE LINCOLN	BLCT	19960708KK	LIC
8N NE MCCOOK	BLCT	19821110KI	LIC
8N OK TULSA	BLCT	19880602KE	LIC
9N KS HAYS	BLCT	19821130KE	LIC
8A OK CHEYENNE	BPEDT	20000501AHF	CP

After Analysis

Results for: 8N KS HUTCHINSON	BLET	263	LIC
	POPULATION	AREA (sq km)	
within Noise Limited Contour	670014	24117.2	
not affected by terrain losses	643864	23237.0	
lost to NTSC IX	77870	4513.0	
lost to additional IX by ATV	1503	572.1	
lost to all IX	79373	5085.1	

Potential Interferring Stations Included in above Scenario 1

7N KS HAYS	BLCT	1759	LIC
8N NE LINCOLN	BLCT	19960708KK	LIC
8N NE MCCOOK	BLCT	19821110KI	LIC
8N OK TULSA	BLCT	19880602KE	LIC
9N KS HAYS	BLCT	19821130KE	LIC
8A OK CHEYENNE	BPEDT	20000501AHF	CP
8A KS Lakin	CUR	PROPOSED	

Result key: 3  
 Scenario 2 Affected station 3  
 Before Analysis

Results for: 8N KS HUTCHINSON	BLET	263	LIC
	POPULATION	AREA (sq km)	
within Noise Limited Contour	670014	24117.2	
not affected by terrain losses	643864	23237.0	
lost to NTSC IX	77870	4513.0	
lost to additional IX by ATV	4	4.0	
lost to all IX	77874	4517.0	

Potential Interferring Stations Included in above Scenario 2

7N KS HAYS	BLCT	1759	LIC
8N NE LINCOLN	BLCT	19960708KK	LIC
8N NE MCCOOK	BLCT	19821110KI	LIC
8N OK TULSA	BLCT	19880602KE	LIC
9N KS HAYS	BLCT	19821130KE	LIC
8A OK CHEYENNE	DTVPLN	DTVP0041	PLN

After Analysis

Results for: 8N KS HUTCHINSON	BLET	263	LIC
	POPULATION	AREA (sq km)	
within Noise Limited Contour	670014	24117.2	
not affected by terrain losses	643864	23237.0	
lost to NTSC IX	77870	4513.0	
lost to additional IX by ATV	1503	572.1	
lost to all IX	79373	5085.1	

Potential Interferring Stations Included in above Scenario 2

7N KS HAYS	BLCT	1759	LIC
8N NE LINCOLN	BLCT	19960708KK	LIC
8N NE MCCOOK	BLCT	19821110KI	LIC
8N OK TULSA	BLCT	19880602KE	LIC
9N KS HAYS	BLCT	19821130KE	LIC
8A OK CHEYENNE	DTVPLN	DTVP0041	PLN

8A KS Lakin

CUR

PROPOSED

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# Analysis of Interference to Affected Station 4

## NTSC Baseline Analysis

Channel	Call	City/State	Application	Ref. No.
08	KSNK	MCCOOK NE	DTVPLN	-NPLN0930

## Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
08	KTSC	PUEBLO CO	377.6	PLN	DTVPLN	-NPLN0220
07	KBSHTV	HAYS KS	157.5	PLN	DTVPLN	-NPLN0512
08	KPTS	HUTCHINSON KS	320.6	PLN	DTVPLN	-NPLN0516
09	KOOD	HAYS KS	205.8	PLN	DTVPLN	-NPLN0518
08	KLKN	LINCOLN NE	310.5	PLN	DTVPLN	-NPLN0929
09	KPNETV	NORTH PLATTE NE	137.8	PLN	DTVPLN	-NPLN1029
08	KZSDTV	MARTIN SD	406.9	PLN	DTVPLN	-NPLN1320

Results for:	8N NE MCCOOK	DTVPLN	NPLN0930	PLN
		POPULATION	AREA (sq km)	
within Noise Limited Contour		55994	24816.9	
not affected by terrain losses		50113	23342.0	
lost to NTSC IX		4727	2058.4	
lost to additional IX by ATV		0	0.0	
lost to all IX		4727	2058.4	

## Analysis of current record

Channel	Call	City/State	Application	Ref. No.
08	KSNK	MCCOOK NE	BLCT	-19821110KI

## Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
07	KBSH-TV	HAYS KS	157.5	LIC	BLCT	-1759
08	KTSC	PUEBLO CO	369.9	LIC	BLET	-270
08	KPTS	HUTCHINSON KS	320.6	LIC	BLET	-263
08	KLKN	LINCOLN NE	310.5	LIC	BLCT	-19960708KK
08	KZSD-TV	MARTIN SD	406.9	LIC	BLET	-19901120KE
09	KOOD	HAYS KS	205.8	LIC	BLCT	-19821130KE
09	KPNE-TV	NORTH PLATTE NE	137.8	LIC	BLET	-150
09	KPNE-TV	NORTH PLATTE NE	143.5	APP	BPET	-20000407ACH
08	KSWK-DT	Lakin KS	225.4		CUR	-PROPOSED

Proposal causes no interference

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# Analysis of Interference to Affected Station 5

## DTV Baseline Analysis

Channel	Call	City/State	Application	Ref. No.
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08 KWET-DT CHEYENNE OK DTVPLN -DTVP0041

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
09	KFDA-DT	AMARILLO TX	200.0	PLN	DTVPLN	-DTVP0054
08	KPTS	HUTCHINSON KS	321.3	PLN	DTVPLN	-NPLN0516
07	KSWOTV	LAWTON OK	175.8	PLN	DTVPLN	-NPLN1217
08	KTUL	TULSA OK	367.7	PLN	DTVPLN	-NPLN1219
09	KWTV	OKLAHOMA CITY OK	196.2	PLN	DTVPLN	-NPLN1224
07	KVII-TV	AMARILLO TX	202.0	PLN	DTVPLN	-NPLN1421
08	WFAATV	DALLAS TX	416.0	PLN	DTVPLN	-NPLN1425

Results for: 8A OK CHEYENNE DTVPLN DTVP0041 PLN

HAAT 299.0 m, ATV ERP 15.7 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	111901	28668.5
not affected by terrain losses	96661	27399.1
lost to NTSC IX	6268	709.3
lost to additional IX by ATV	0	0.0
lost to ATV IX only	0	0.0
lost to all IX	6268	709.3

NTSC Baseline Analysis

Channel	Call	City/State	Application	Ref. No.
12	KWET	CHEYENNE OK	DTVPLN	-NPLN1234

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
12	KWCHTV	HUTCHINSON KS	322.3	PLN	DTVPLN	-NPLN0526
12	KVIHTV	CLOVIS NM	364.2	PLN	DTVPLN	-NPLN1043
13	KETA	OKLAHOMA CITY OK	196.2	PLN	DTVPLN	-NPLN1238
12	KXII	SHERMAN TX	313.9	PLN	DTVPLN	-NPLN1534
12	KTXSTV	SWEETWATER TX	355.8	PLN	DTVPLN	-NPLN1535

Results for: 12N OK CHEYENNE DTVPLN NPLN1234 PLN

	POPULATION	AREA (sq km)
within Noise Limited Contour	112017	28672.5
not affected by terrain losses	90139	26222.3
lost to NTSC IX	13190	3119.1
lost to additional IX by ATV	0	0.0
lost to all IX	13190	3119.1

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
08	KWET-DT	CHEYENNE OK	BPEDT	-20000501AHF

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
07	KSWO-TV	LAWTON OK	175.8	LIC	BLCT	-2467
07	KOCO-DT	OKLAHOMA CITY OK	196.8	APP	BPCDT	-20010904ABG
07	NEW	OKLAHOMA CITY OK	196.8	APP	BPRM	-20000412AAA
07	KVII-TV	AMARILLO TX	202.0	LIC	BLCT	-1882
07	KVII-TV	AMARILLO TX	201.9	CP	BPCT	-19991129AAP
08	KPTS	HUTCHINSON KS	321.3	LIC	BLET	-263

08	KTUL	TULSA OK	367.7	LIC	BLCT	-19880602KE
08	WFAA-TV	DALLAS TX	416.0	LIC	BLCT	-19900615KG
09	KWTV	OKLAHOMA CITY OK	196.2	LIC	BLCT	-19860922KP
09	KFDA-DT	AMARILLO TX	200.0	APP	BPCDT	-19991029ABB
09	KFDA-DT	AMARILLO TX	200.0	PLN	DTVPLN	-DTVP0054
08	KSWK-DT	Lakin KS	279.6		CUR	-PROPOSED

Total scenarios = 1

Result key: 4  
 Scenario 1 Affected station 5  
 Before Analysis

Results for: 8A OK CHEYENNE BPEDT 20000501AHF CP  
 HAAT 303.0 m, ATV ERP 30.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	123975	32458.2
not affected by terrain losses	109955	31120.2
lost to NTSC IX	6115	523.9
lost to additional IX by ATV	0	0.0
lost to ATV IX only	0	0.0
lost to all IX	6115	523.9

Potential Interfering Stations Included in above Scenario 1

8N KS HUTCHINSON	BLET	263	LIC
8N OK TULSA	BLCT	19880602KE	LIC

After Analysis

Results for: 8A OK CHEYENNE BPEDT 20000501AHF CP  
 HAAT 303.0 m, ATV ERP 30.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	123975	32458.2
not affected by terrain losses	109955	31120.2
lost to NTSC IX	6115	523.9
lost to additional IX by ATV	1277	890.6
lost to ATV IX only	3660	1196.9
lost to all IX	7392	1414.6

Potential Interfering Stations Included in above Scenario 1

8N KS HUTCHINSON	BLET	263	LIC
8N OK TULSA	BLCT	19880602KE	LIC
8A KS Lakin	CUR	PROPOSED	

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Analysis of Interference to Affected Station 6

Analysis of current record

Channel	Call	City/State	Application Ref. No.
08	KWET-DT	CHEYENNE OK	DTVPLN -DTVP0041



# Stations Potentially Affecting This Station

Chan	Call	City/State	Dist (km)	Status	Application	Ref. No.
07	KSWO-TV	LAWTON OK	175.8	LIC	BLCT	-2467
07	KOCO-DT	OKLAHOMA CITY OK	196.8	APP	BPCDT	-20010904ABG
07	NEW	OKLAHOMA CITY OK	196.8	APP	BPRM	-20000412AAA
07	KVII-TV	AMARILLO TX	202.0	LIC	BLCT	-1882
07	KVII-TV	AMARILLO TX	201.9	CP	BPCT	-19991129AAP
08	KPTS	HUTCHINSON KS	321.3	LIC	BLET	-263
08	KTUL	TULSA OK	367.7	LIC	BLCT	-19880602KE
08	WFAA-TV	DALLAS TX	416.0	LIC	BLCT	-19900615KG
09	KWTV	OKLAHOMA CITY OK	196.2	LIC	BLCT	-19860922KP
09	KFDA-DT	AMARILLO TX	200.0	APP	BPCDT	-19991029ABB
09	KFDA-DT	AMARILLO TX	200.0	PLN	DTVPLN	-DTVP0054
08	KSWK-DT	Lakin KS	279.6		CUR	-PROPOSED

Total scenarios = 1

Result key: 5  
Scenario 1 Affected station 6  
Before Analysis

Results for: 8A OK CHEYENNE DTVPLN DTVP0041 PLN  
HAAT 299.0 m, ATV ERP 15.7 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	111901	28668.5
not affected by terrain losses	96661	27399.1
lost to NTSC IX	6268	709.3
lost to additional IX by ATV	0	0.0
lost to ATV IX only	0	0.0
lost to all IX	6268	709.3

Potential Interferring Stations Included in above Scenario 1

8N KS HUTCHINSON	BLET	263	LIC
8N OK TULSA	BLCT	19880602KE	LIC

After Analysis

Results for: 8A OK CHEYENNE DTVPLN DTVP0041 PLN  
HAAT 299.0 m, ATV ERP 15.7 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	111901	28668.5
not affected by terrain losses	96661	27399.1
lost to NTSC IX	6268	709.3
lost to additional IX by ATV	1442	999.4
lost to ATV IX only	2909	1523.3
lost to all IX	7710	1708.7

Potential Interferring Stations Included in above Scenario 1

8N KS HUTCHINSON	BLET	263	LIC
8N OK TULSA	BLCT	19880602KE	LIC
8A KS Lakin	CUR	PROPOSED	

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# Analysis of Interference to Affected Station 7

## Analysis of current record

Channel	Call	City/State	Application	Ref. No.
08	KSWK-DT	Lakin KS	CUR	-PROPOSED

## Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
07	KBSH-TV	HAYS KS	194.0	LIC	BLCT	-1759
08	KTSC	PUEBLO CO	307.6	LIC	BLET	-270
08	KPTS	HUTCHINSON KS	293.3	LIC	BLET	-263
08	KSNK	MCCOOK NE	225.4	LIC	BLCT	-19821110KI
08	KWET-DT	CHEYENNE OK	279.6	CP	BPEDT	-20000501AHF
08	KWET-DT	CHEYENNE OK	279.6	PLN	DTVPLN	-DTVP0041

Total scenarios = 2

Result key: 6  
Scenario 1 Affected station 7  
Before Analysis

Results for: 8A KS Lakin CUR PROPOSED  
HAAT 141.0 m, ATV ERP 100.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	114857	26476.9
not affected by terrain losses	112956	25978.6
lost to NTSC IX	6558	912.2
lost to additional IX by ATV	6029	438.0
lost to ATV IX only	7002	663.0
lost to all IX	12587	1350.2

## Potential Interfering Stations Included in above Scenario 1

8N CO PUEBLO	BLET	270	LIC
8N KS HUTCHINSON	BLET	263	LIC
8N NE MCCOOK	BLCT	19821110KI	LIC
8A OK CHEYENNE	BPEDT	20000501AHF	CP

Result key: 7  
Scenario 2 Affected station 7  
Before Analysis

Results for: 8A KS Lakin CUR PROPOSED  
HAAT 141.0 m, ATV ERP 100.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	114857	26476.9
not affected by terrain losses	112956	25978.6
lost to NTSC IX	6558	912.2
lost to additional IX by ATV	1180	200.9
lost to ATV IX only	1353	365.7
lost to all IX	7738	1113.1

Potential Interferring Stations Included in above Scenario 2

8N CO PUEBLO	BLET	270	LIC
8N KS HUTCHINSON	BLET	263	LIC
8N NE MCCOOK	BLCT	19821110KI	LIC
8A OK CHEYENNE	DTVPLN	DTVP0041	PLN

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